

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

BLACKBIRD TECH LLC d/b/a
BLACKBIRD TECHNOLOGIES,

Plaintiff,
v.
CLOUDFLARE, INC.,
Defendant.

C.A. No. 1:17-cv-00283-VAC-CJB

JURY TRIAL DEMANDED

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Blackbird Tech LLC d/b/a Blackbird Technologies (“Blackbird Technologies”) hereby alleges for its First Amended Complaint for Patent Infringement against Defendant Cloudflare, Inc. (“Cloudflare”) on personal knowledge as to its own activities and on information and belief as to all other matters, as follows:

THE PARTIES

1. Plaintiff Blackbird Technologies is a Delaware limited liability company with its principal place of business located at 200 Baker Avenue, Suite 203, Concord, Massachusetts 01742.
2. On information and belief, Cloudflare is a Delaware corporation. Cloudflare may be served via its registered agent, Registered Agent Solutions, Inc., 1679 S. Dupont Hwy., Ste. 100, Dover, DE 19901.

JURISDICTION AND VENUE

3. This is an action for patent infringement arising under the provisions of the Patent Laws of the United States of America, Title 35, United States Code §§ 100, *et seq.*

4. Subject-matter jurisdiction over Blackbird Technologies' claims is conferred upon this Court by 28 U.S.C. § 1331 (federal question jurisdiction) and 28 U.S.C. § 1338(a) (patent jurisdiction).

5. This Court has personal jurisdiction over Cloudflare because Cloudflare is subject to general and specific jurisdiction in Delaware. Cloudflare has also established minimum contacts with this forum. The exercise of personal jurisdiction comports with Cloudflare's right to due process because, as described below, Cloudflare has purposefully availed itself of the privilege of conducting activities within Delaware such that it should reasonably anticipate being haled into court here. As alleged herein, acts by Cloudflare in this District have caused injury to Blackbird Technologies.

6. Cloudflare has been incorporated in Delaware at all relevant times.

7. Cloudflare regularly conducts business in Delaware, by marketing, selling, and/or offering for sale accused web content delivery services and systems through its website, www.cloudflare.com, which is accessible throughout the United States, including Delaware. Cloudflare's customers include at least multiple Delaware companies. Cloudflare also delivers web content to citizens of Delaware using the accused web content delivery services and systems.

8. Venue is proper in this District pursuant to 28 U.S.C. §§ 1391(b) and (c) and § 1400(b) at least because Cloudflare transacts business within this District and has committed acts in this District that infringe U.S. Patent No. 6,453,335.

U.S. PATENT NO. 6,453,335

9. U.S. Patent No. 6,453,335 (the “335 patent” or “patent-in-suit”) entitled, “Providing an Internet Third Party Data Channel,” was duly and legally issued by the U.S. Patent and Trademark Office on September 17, 2002. Blackbird Technologies is the owner by

assignment of all right, title, and interest in and to the '335 patent, including all right to recover for any and all infringement thereof. The '335 patent is valid and enforceable. A true and correct copy of the '335 patent is attached as Exhibit A.

10. The inventions claimed in the '335 patent represent an improvement to the technologies that make the internet work. At the time of invention, internet communications protocols, such as the hypertext transfer protocol (HTTP), allowed for the exchange of data, such as documents encoded in the hypertext markup language (HTML), over the internet. These protocols generally permitted only two parties to the communication: the client and the server. As a result, third party participation in existing client-server communications was problematic.

11. The inventions claimed in the '335 patent constitute novel and non-obvious ways of providing an internet third party data channel. The claimed inventions address shortcomings of existing internet communications protocols, and extend those protocols to communications involving three parties. This is done in a technical manner by introducing a distinct processing device located physically and logically between the client and server. The processing device monitors client-server data communications having predetermined properties, such as HTTP status codes, and upon the detection of such communications, accesses a distinct data source to obtain third party data, modifies or replaces the original data communication in response to the third party data, and then provides the resulting data communication to the intended recipient. Furthermore, to better utilize networking and computing resources, in certain claimed inventions, data is only transmitted on the third party data channel when the data transmission rate of the server to the client is below a predetermined threshold.

COUNT I – INFRINGEMENT OF THE ‘335 PATENT

12. Blackbird Technologies reasserts and incorporates by reference the preceding paragraphs of this First Amended Complaint as if fully set forth herein.

13. Cloudflare infringes one or more claims of the ‘335 patent, including at least claims 8 and 24, by importing, making, using, selling, and/or offering to sell certain web content systems and services as part of its content delivery network (“CDN”), as explained below.

14. Cloudflare’s CDN performs a method, and also includes an apparatus, “for providing an internet third party data channel, said third party data channel being established within an existing data channel between an internet server and an internet client, said third party data channel connecting a data source distinct from said internet server to said internet client,” as claimed.

15. The Cloudflare CDN comprises a network including multiple data centers, including multiple data centers in the US. Cloudflare sometimes refers to these data centers as “points of presence,” “POPs,” “edge servers,” and “edge caches.” Data centers in the Cloudflare CDN include at least computer servers and other network devices. According to Cloudflare, the systems in these data centers store copies of web content originally stored on content providers’ computer servers and requested by users via the web. Cloudflare sometimes refers to content providers’ computer servers as “origin servers,” and to the storage means within its CDN data centers as “caches.” In networking terms, Cloudflare data centers are located between user systems and origin servers, and are distinct from both user systems and origin servers. (*See Exhibit B*).

16. User requests for web content from an origin server are routed to a data center within the Cloudflare CDN. In general terms, if the requested content is present in the Cloudflare cache (*e.g.*, because a user has previously requested such content), Cloudflare provides the user

with the cached copy of the requested content, stored at the data center, without contacting the origin server. In this way, the workload of the origin server is reduced, which content providers generally find beneficial. If, however, the requested content is not present in the Cloudflare cache (*e.g.*, because no user has previously requested such content, which may be the case when the content is updated or new), the Cloudflare CDN requests the content from the appropriate origin server and then passes the content along to the user system. (*See Exhibit B*).

17. The Cloudflare CDN includes “a processing device distinct from said internet server for monitoring said existing data channel for a data communication having a predetermined property, said data communication having an intended recipient of one of said internet server and said internet client,” as claimed.

18. The Cloudflare data centers include processing devices for monitoring data communications between user systems and origin servers. For example, systems in Cloudflare data centers monitor data communications from origin servers to user systems having predetermined properties such as HTTP status codes, some of which indicate the occurrence of an error relating to the origin server. (*See Exhibit C*).

19. The processing devices within the Cloudflare data centers are “adapted, upon detection of said data communication, to access said data source to obtain third party data, to execute a step selected from the group consisting of the step of modifying said data communication in response to said third party data and the step of replacing said data communication in response to said third party data to obtain a resultant data, and to send said resultant data communication to said intended recipient,” as claimed.

20. When the processing devices within the Cloudflare data centers detect certain error codes, the processing devices can access the cache to retrieve an error webpage customized for the

error code in question. Cloudflare sometimes refers to these customized error webpages as “branded” error webpages. Instead of merely passing the error code onto the user system, the Cloudflare data centers provide the custom error page appropriate for the error code in question. (*See Exhibit C*).

21. In the Cloudflare CDN, “data is only transmitted on said third party data channel when the data transmission rate of said server to said client is below a predetermined threshold,” as claimed.

22. According to Cloudflare, custom error pages can be provided for error codes indicating the occurrence of an error involving the origin server concerning the data transmission rate of the origin server and/or further upstream servers. (*See Exhibits C & D*).

23. To the extent Cloudflare’s direct infringement is not literal, the differences between the claimed methods and systems and the infringing methods and systems are insubstantial, as the infringing methods and systems perform substantially the same function, in substantially the same way, to achieve the substantially same result.

24. Blackbird Technologies has sustained damages as a direct and proximate result of Defendant’s infringement of the ’335 patent.

25. As a consequence of Cloudflare’s past infringement of the ’335 patent, Blackbird Technologies is entitled to the recovery of past damages in the form of, at a minimum, a reasonable royalty.

26. As a consequence of Cloudflare’s continued and future infringement of the ’335 patent, Blackbird Technologies is entitled to royalties for its infringement of the ’335 patent on a going-forward basis.

PRAYER FOR RELIEF

WHEREFORE, Blackbird Technologies respectfully requests that this Court enter judgment against Defendant, as follows:

- A. Adjudging that Defendant has infringed at least claims 8 and 24 of the '335 patent literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a);
- B. An award of damages to be paid by Defendant adequate to compensate Blackbird Technologies for Defendant's past infringement and any continuing or future infringement up until the date such judgment is entered, and in no event less than a reasonable royalty, including interest, costs, and disbursements pursuant to 35 U.S.C. § 284 and, if necessary to adequately compensate Blackbird Technologies for Defendant's infringement, an accounting of all infringing sales including, but not limited to, those sales not presented at trial;
- C. Ordering Defendant to continue to pay royalties to Blackbird Technologies for infringement of the '335 patent on a going-forward basis;
- D. Awarding that this case be exceptional under 35 U.S.C. § 285 and awarding costs, expenses, and attorneys' fees to Blackbird Technologies;
- E. Awarding Blackbird Technologies pre-judgment and post-judgment interest at the maximum rate permitted by law on its damages; and
- F. Granting Blackbird Technologies such further relief as this Court deems just and proper under the circumstances.

DEMAND FOR JURY TRIAL

Blackbird Technologies demands a trial by jury on all claims and issues so triable.

Dated: May 19, 2017

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CERTIFICATE OF SERVICE

I hereby certify that on May 19, 2017, I electronically filed the foregoing document with the Clerk of Court using CM/ECF which will send electronic notification of such filings to all registered counsel.

/s/ Stamatios Stamoulis

Stamatios Stamoulis #4606